DOCUMENT RESUME

ED 186 898 CS 205 528

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TITLE Psycholinguistics and Readability: The Cognitive Reality of the Reader.
PUB DATE Mar 80
NOTE 23p.; Paper presented at the Annual Meeting of the Conference on College Composition and Communication (31st, Washington, DC, March 13-15, 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Audiences; Cognitive Processes; *Concept Formation; Higher Education; *Models; *Psycholinguistics; *Readability; Rhetoric; Rhetorical Criticism; *Writing Instruction; Writing Skills
IDENTIFIERS *Audience Awareness; Composition Process

ABSTRACT

Modeling the process of communication through fictive constructions of audience is as much a part of teaching writing as is imparting rules for grammar and organization. A historical review of rhetorical theory and the goals of writing instruction delineates the shift away from traditional, fuzzy conceptions of audience to more carefully researched models of conceptualization, discourse structure, and comprehensibility. But the question remains of how to apply these theories of a text's readability in the writing classroom. The historical evidence shows that descriptions of texts do not translate very readily into prescriptions for writing, because the prescriptions derived from readability are questionably simplistic and constraining. Nevertheless, understanding the psychological principles that govern readability may be a different and quite valid objective for students. Just as linguistic competence is an intriguing area of inquiry, studying readability can be a means of engaging student interest in the mental processes that are involved in interactions between authors, products, and audiences. Teachers should be careful to distinguish this writing goal from the very different goal of teaching students to compose clear, correct, and engaging discourse. (RL)

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Psycholinguistics and Readability: The Cognitive Reality of the Reader

Recent Reconstructions of Audience

Five years ago, Walter Ong produced an article in PMLA entitled "The Writer's Audience is Always a Fiction," in which he suggested that "audience" as conceived of in most writing classes is a fictional construct used to create a motivating context for composition writing.[1] The way in which that fiction is constructed is an important and often unexamined determinant of the way in which both students and teachers model the process of communication. Modeling that process, through fictive models of audience, is as much a part of teaching writing as imparting rules for grammar and organization. Ong's point was that audience is a construct in the writer's mind, and that the successful writer learns to construct audiences which will work to generate appropriate and engaging discourse. Ong's article is a useful touchstone for examining the recent resurgence of interest in readability, and the related question of the cognitive reality of the reader.

The term readability, to one not familiar with psychological research, connotes a quality which any writer should aim for in his or her prose. This was the initial, and admittedly uninformed connotation with which I originally approached the subject of

readability and rhetoric. Readability, I thought, must be something quite like the classical rhetorician's concern with efficacious prose directed at a specific audience. However, readability, as currently defined by E. D. Hirsch and others, has very little to do with the writer's conception of audience, except insofar as that audience can be represented by a statistical norm derived from the testing of texts. The difference between this statistical norm as a conception of audience in the writer's mind, and the traditional, if "unscientific" conception of audience is an important one, because it marks a change in the communication model, or situational paradigm which we necessarily teach as we teach writing. Readability is one important recent innovation in communication paradigms which, like several others, is justified by its proponents on the grounds that it is based on empirical research and is thus an improvement over older, non-empirically derived models.

At this year's MLA a special session entitled "The Future of Research in Composing" crystallized some of the questions which are being generated by the application of linguistics and cognitive psychology to writing pedagogy. E. D. Hirsch was accompanied by Richard Young, David Olson, and Walter Ong in a series of presentations which fell into two categories: Strong defenses of psycholinguistic research as a commendably precise basis and model for research in composing, and tolerant but pointed reconsiderations of the feasibility and usefulness of psycholinguistically based composition teaching and research. Richard Young and David Olson summarized the linguistic research which substantiates the writing teacher's intuition that learning to write inculcates skill in critical thinking. The facility for abstraction, logic, and

linear discourse, and the ability to distinguish between what is said and what is meant are, they argued, fundamentally important concomitants of literacy which can and should be a primary objective of writing instruction. Thus, they suggested, one of the future directions of research in composing should be to continue the research in cognitive psychology and psycholinguistics which identifies the most efficient means of inculcating these important intellectual facilities.

The value of readability as a pedagogical model is often defined in cognitive, developmental terms. Attentiveness to clause and sentence structure, redundancy, explicitness, and thematic tags, all definitive components in readability, are valuable as what Hirsch terms "psychological knowledge."[2] While intellectual facility and psychological knowlege are only roughly cognate values, both emphasize mental faculties rather than the specific speaker-hearer, or writer-reader relationship which has been central to traditional rhetoric. At MLA, Hirsch, much like Young and Olson, emphasized the conceptual and perceptual validity of the model he espouses. However, Hirsch articulated a surprising revision of his conclusion to The Philosophy of Composition, where he had argued that psycholinguistic research can and should be an important basis for "mission oriented, scientific research" in composition.[3] He has now come to the conclusion that the research he proposed at the end of The Philosophy of Composition is too complex to be tackled by existing scientific methods and that, for that reason, research in composing should be naturalistic --based on natural experience in

the classroom-- and anecdotal.[4] In fact, he argued, anecdotal reaearch is more scientific than empirical linguistic research because it is holistic --it takes into account the complicated variables of cultural background, teacher-student interaction, and the constantly shifting norms of spoken usage which are virtually impossible to quantify and fix for the purposes of duplicable research as defined by social science and linguistics.

The issues of the aims and methods of current composition teaching were usefully debated in the MLA discussion. Olson and Young said that writing courses should inculcate the abilities to produce logical, linear, successfully abstracted reasoning by emphasizing the differences between written and spoken discourse, and the difference between what is said and what is meant. Hirsch, much as he had in The Philosophy of Composition, suggested that composition should teach the practical art of producing readable prose, through teaching the psychological knowledge of readability. Hirsch now rejects the possibility that psycholinguistic research can produce solid pedagogical models, but he has not significantly altered his Philosophy of Composition definition of the aim and means of composition teaching. He believes that writing is a practical art distinct from logic and rhetoric because, he maintains, the logic and clarity of writing are distinct from the logic and clarity of thought. Readability, he here has argued is a means for scientifically teaching the practical art of writing. Since relative readability is a "truly universal norm of writing," to teach readability is to teach the psychological principles which govern all readability. This "practical psychological

knowledge," put into practice, is a discrete, scientific, and attainable objective for the writing classroom.

Like Dick Young and David Olson, Hirsch depicts the aims and means of writing instruction in almost exclusively cognitive terms, independent of the fields of audience and meaning which, Hirsch maintains, blur the focus of practical writing teaching when they are given attention in writing classrooms.

Although there are important differences between Hirsch's depiction of the aims and means of writing instruction and those articulated by Young, and Olson, at MLA, all have in common a strong base in psycholinguistic research. Just as important, these recent articulations of the goals of writing instruction mark a shift away from traditional, albeit fuzzy, conceptions of audience and towards carefully researched-based models of conceptualization, discourse structure, and comprehensibility.

One would think that producing readable discourse would be a pedagogical aim almost identical to that of traditional rhetoric. The audience, in Hirsch's schema, ought to become the reader. However, this is not so, for the reader is not nearly so central to readability theory as its name suggests. In fact, "the reader" has very little prominence, and is replaced by rules of comprehension, clarity, and reduced ambiguity which have been derived from the analysis of comprehensible texts. The reader is a personified statistical average in readability theory, and readability, then, a strategy for producing discourse directed at a statistical composite.

Since Hirsch's divorce of composition from rhetoric has

attracted so much attention, and since Hirsch's conversion from what he terms "aestheticism," or literary interpretation theory, to practical pedagogy is equally noteworthy, I want to examine the rearrangement of the relationships among rhetoric, hermeneutics, and readability which is articulated in The Philosophy of Composition. Replacing traditional, if fuzzy, conceptions of audience with more strictly defined and measurable cognitive profiles of readable discourse may be a long overdue improvement. However, we should be aware of what we lose, as well as what we gain, with this shift from interactional to cognitive discourse models.

Rhetoric, Hermeneutics, and Readability

Classical rhetoric originated as a pedagogy for speakers, not writers. Nonetheless, classical and subsequent rhetorics generated taxonomies of audiences and taxonomies of discourse structures appropriate to each of those audiences which have proved adaptable to teaching written discourse. It is significant, for example, that "the audience" persists as the preferred term for the hearer or reader of discourse and continues to be used in writing classes regardless of whether they have "rhetoric" in their titles or deal with spoken as well as written discourse.

Modern rhetoric and composition courses, like their classical precursors, teach students to identify audience characteristics and discourse expectations as a prelude to composing discourses which will be appropriate to specific audiences. However, when students are on the receiving end of peer and sample compositions they are as often as not taught to conceive of themselves as critical readers. They read compositions as observers of the

relationship between the writer and his or her audience and not as that audience. Students are taught to be critical readers who write for audiences. While this implicitly dual role is not necessarily problematic or contradictory, it indicates the extent to which even before Hirsch, we had added the cognitive and analytical objectives of critical thinking and textual analysis to the classical objectives of rhetoric.

Long before he turned to the problem of readability in written composition teaching, Hirsch was concerned with readers and with correct readings. Much of his work prior to The Philosophy of Composition dealt with interpretation theory, and specifically, with defining interpretive methods which will yield valid interpretations of intrinsic and intended meaning. Even though Hirsch suggests that his recent practical interests are discontinuous with his earlier interests it should be noted that concern with validity and correctness in interpretive methodology is of a piece with the desire to teach students to produce compositions which will be correctly interpreted. Readability, particularly readability as defined by Hirsch, is a means for reducing the possibility of miscommunication and misinterpretation.

The objectives of clarity, economy, and reduced ambiguity, key terms in readability theory, superficially resemble the traditional objectives of rhetoric: the production of discourse which will be efficacious in a specific and carefully defined situation. However, traditional rhetoric has elements which can be at odds with the objectives of clarity and reduced ambiguity. Esthetic and logical craft, if not decoration, are highly valued in rhetoric, at times as ends in themselves, and at such times because they impart elegance and intelligence to the

speaker or writer. Esthetic and logical craft are not always congruent with clarity or economy of expression. Nonetheless, such qualities may at times be highly desirable for metacommunicative purposes, for what they say about the situation or about the relationship between speaker and hearer, reader and writer: "this is a ceremonial occasion," or "let me now praise you." Teaching students to attend to the contextual elements of audience and situation which are indicated by the phrase "the audience," reinforces attentiveness to metacommunication as well as communication as objectives in discourse. The more singular objective of clarity and efficiency which emerges when "the reader" is named as the recipient of compositions can purchase precision at the expense of a more holistic realism.

An instructive precursor for the decisions generated by readability theory as a pedagogical alternative to rhetorical audience models can be observed at two different stages in the development of classical rhetoric: the third century B.C., and the third century A.D. Just as we are now choosing to focus on cognitive and logical sophistication, the classical Greeks chose to focus on oral, political, forensic discourse taught through elaborate taxonomies of audience. I say chose because this focus evolved gradually, and not without debate. Some, most notably Socrates believed it was impossible and unethical to try to catalogue all the possible classes of audiences and to predict their comprehension skills and gullibility to certain modes of discourse.[5] Most notably Socrates, advocated an emphasis on cognitive development and logical precision, but the Greek culture of his time chose an

alternative: focus on instrumental, suasive oratory. Aristotle's taxonomic rhetorical model gradually became the norm and was transmitted via the Rhetorica ad Herrenium, to Roman culture during the first century B.C.

In the third century A.D. Augustine realized that the classical rhetorical model was inadequate to a new and pressing pedagogical objective: teaching homiletics. Augustine recognized that Classical rhetoric had indelibly shaped the discourse conventions of the late Roman world and thus could not be dispensed with entirely. If the preacher was to reach the educated pagan, as Ambrose and Jerome had reached the educated Augustine, he must learn some of the principles of efficacious, suasive rhetoric. At the same time, because incompatible scriptural interpretations were threatening the church with doctrinal fragmentation, the preacher couldn't simply be given a neutral rhetoric to do with as he pleased. Augustine's difficult objective was to merge rhetorical and hermeneutic models in such a way that the preacher would produce suasive but doctrinally correct homilies. The result was De Doctrina Christiana, a rhetoric, phenomenology, and theology of language.

Augustinian and subsequent medieval rhetorics, though derived from classical rhetorics, were handbooks for preachers as teachers of correct scriptual interpretation. The Augustinian and medieval concern with scriptural interpretation generated the doctrine of intrinsic meaning, in which there could not be more than one correct interpretation, or else heresy threatened. The intrinsic meaning of scripture was, of course identical to authorial

intent since to correctly discern scriptural meaning was to correctly understand the word of God. Instead of different interpretations of symbolic or figurative passages, allowance was made for different levels of meaning, each fitting into a larger, non-contradictory whole. As this model became secularized, the concept of intrinsic meaning and the importance of authorial intent perished as primary interpretive tools in secular hermeneutics. Unlike Classical rhetoric, medieval rhetoric and hermeneutics incorporated logical and spiritual truth into the canons of discourse teaching, paving the way for the confusion of "correctness" with "persuasiveness" which has been pervasive in post-Ramist rhetorics.

The continental hermeneutic and more recent phenomenological tradition on which Hirsch has based his work on interpretation is a direct descendent of the medieval hermeneutic tradition. Unlike the Anglo-American rhetorical tradition, which has been more latitudinarian, and more exclusively concerned with style, the continental tradition has been persistently concerned with correct interpretation based on intrinsic meaning and authorial intent. In a sense, Hirsch's doctrine of readability as it is elaborated in The Philosophy of Composition replicates the merger of rhetoric and hermeneutics which was effected by Augustine's De Doctrina Christiana. Augustine was insistent that correct doctrine, via correct interpretation, be transmitted through homiletic rhetoric; Hirsch is insistent that writers define, and convey, one unambiguous meaning. In promulgating this objective, Hirsch moves within a continuum begun in his interpretation theory. Just as a given text has a correct and discernible interpretation, a writer should

have a singular and unambiguously articulated meaning. The hermeneutic circle, in this manner, remains unbroken.

Readability, like Augustine's hermeneutic rhetoric, is a strongly prescriptive paradigm. While "clarity" is not as obviously dogmatic as "truth," once stated and rigorously defined as an objective and rule, it severely limits the range of possible discourse structures. Students are taught to produce and reproduce readable discourse, and not necessarily to invent or even compose. While a strongly prescriptive, model based composition pedagogy such as Hirsch's may be desirable, we should consider its limitations as well as its assets, and be able to articulate the necessity, efficacy, and effects of such a model.

Readability and Psycholinguistics

What happens when one attempts, as Hirsch has, to conflate modern cognitive and specifically, educational, psychology, with the older hermeneutic concept of "correctness" in textual interpretation? The ease with which a reader understands a text, measured by cloze and other tests, is at best an uneasy cognate with methods by which a reader can learn to discern intrinsic and intended meaning. Readability research and hermeneutics have in common the important element of text-centeredness. The text is the starting point from which research, or interpretation, begins. And, the text is the medium by which reader abilities are measured, defined, and in the case of hermeneutics, developed. However, the point of divergence between these two methods lies in the concepts of clarity and ease of comprehension, concepts which are central to readability and peripheral to hermeneutics. As Hirsch well knows,

hermeneutics is often defined as a discipline which began with the need for interpretation, that is, with ambiguous and polysemous texts. Readability, quite to the contrary, aims to reduce the need for interpretation by reducing ambiguity.

Where hermeneutics and readability are directed at texts, theoretical psycholinguistics is directed at mental processes. Psycholinguistics, particularly the applied psycholinguistics involved in defining and teaching readability, are disciplines in their infancy. Chomsky's allusions to rationalist psychology as his methodological and intellectual precursor identify what is perhaps the most important element in modern psycholinguistics. Linguistics is now understood by many as a branch of psychology, and for Chomsky, a uniquely valuable vehicle for studying the nature and structure of the mind.

Chomsky's work is often defined in comparison to descriptive linguistics which, some argue, it supplanted. Chomsky himself has said that he wants to go beyond mere description of linguistic usage, to develop"a psychological theory, not a technique of textual interpretation."[6] And, he suggests that the task of linguists is defined by "the problem of accounting for the facts of usage on the basis of explanatory hypotheses concerning the nature of language, and, ultimately, the nature of human thought."[7] The contrast between historical/descriptive linguistics on the one hand and philosophical/cognitive linguistics on the other hand is, in Chomsky's words, "between description and explanation, between grammer as natural history and grammar as a kind of natural philosophy."[8]

One of the more suggestive of Chomsky's observations is his

depiction of traditional descriptive linguistics as a method of textual interpretation, a method which he contrasts with his own model as a method for generating a theory of the mind. Those who are applying cognitive psychology and psycholinguistics to the reading and writing classroom are, on one level, continuing the work begun by earlier rhetoricians who tried to classify types of audience and to predict the efficacy of certain modes of discourse with those audiences. There is a difference, however. Psycholinguistics seeks to understand the structure of the mind and not the efficaciousness of discourse through its studies of verbal and perceptual behavior.

If the aim of much psycholinguistics is to discover theories which will explain mental structure and linguistic behavior, and if readability research is part of that enterprise, it follows that some readability research is a questionable basis for formulating pedagogical maxims. Readability, like Chomsky's "performance," defines actual behavior, not desirable behavior. Chomsky has repeatedly said that theories of competence derived from performance are of questionable value in teaching performance. We might add that any normative theories of discourse structure derived from readability research are of questionable value in teaching writing performance.

Hirsch's formulation of readability as a useful, empirically based source of maxims for good writing is provacative not only in itself, and for the questions it raises about "the reader" as distinct from "the audience." As an adaptation of descriptive psycholinguistics to the purposes of composition pedagogy it parallels

several other, currently popular adaptations. Richard Ohmann's work on the uses of transformational grammar in the writing classroom has provoked interest among applied linguists and composition teachers who have welcomed his successfully demystified assessment of applications of Chomsky's work to practical pedagogical aims. Ohmann reiterates two points which have been revived by The Philosophy of Composition and other adaptations of linguistic thoery to composition teaching. First, utilization of readability, case grammar, protocol analysis and other linguistics-derived methodologies in teaching writing can reduce rather than improve students' facility for handling abstractions and generalizations well. Ohmann attributes this emphasis on "basic skills" as opposed to "critical thinking" to the undeniable pressure to teach measurable basic skills.[9] Second, Ohmann notes that linguistics-derived composition models often teach a rather simple-minded reading methodology rather than writing skill or writing motivation. Evidence is mounting that improved reading skill has little demonstrable transfer value to writing ability or motivation. Thus, once again, we should consider the choices involved in reformulating composition models derived from linguistics research. Such models can improve students' ability to recognize certain structures and patterns, but may have little influence on their ability to produce effective, engaging discourse.

The reader, in readability theory, is not parallel to the audience in rhetorical theory. In practice these two constructs may be used in quite similar ways, but it is clear that the "reader" which is generated as a construct by readability theory

is less diverse and more simple-minded than the "audience," however fuzzily defined that construct has been. In The Philosophy of Composition Hirsch defined a research project more than a pedagogy. He identified several conclusions already reached within psycholinguistics: that readability can be measured, that short term memory and long term memory are linked to discourse structure, and that studies in readability reveal interesting facts about mental processes. All of us need to consider, as Hirsch has since the publication of The Philosophy of Composition, how we can make use of the undeniably provocative discoveries being made in psycholinguistics. Readability exemplifies a growing fascination with empirically based research, but does not mark a major breakthrough in writing pedagogy.

The question of how to apply theories of the mind to the writing classroom is, nonetheless, a pressing one. We have seen, thanks to Hirsch, that descriptions of texts do not translate very readily into prescriptions for writing, because the prescriptions derived from readability are questionably simplistic and constraining. However, understanding the psychological principles which govern readability may be a different and quite valid objective for students. Just as linguistic competence is an intriguing area of inquiry, readability can be a way of engaging students' interest in their own mental processes. If this is one acceptable goal for the writing classroom, and I think it is, we should be careful to distinguish it from the very different goal of teaching students to compose clear, correct, and engaging discourse.

Notes

1. Walter J. Ong, "The Writer's Audience is Always a Fiction," PMLA 90:1 (1975), pp. 9-21.

2. E. D. Hirsch, The Philosophy of Composition (Chicago: University of Chicago Press, 1977), pp. 87 ff., pp. 142 ff.

3. Ibid., p. 170 ff.

4. For an extended critique of the kind of multifaceted, holistic research which Hirsch describes, see Albert R. Kitzhaber, "A Review of Hirsch's The Philosophy of Composition," Rhetoric Society Quarterly VIII:4, (1978), pp. 149-154.

5. The following passage from Plato's Phaedrus records Socrates' somewhat tongue-in-cheek suggestion that the objectives of rhetoric, as taught in his day, were ridiculously impossible to achieve.

> When he is not only qualified to say what type of man is influenced by what type of speech, but is able to also to single out a particular individual and make clear to himself that there he has actually before him a specific example of a kind of character which he has heard described, and that this is what he must say and this is how he must say it if he wants to influence his hearer in this particular way--when, I say, he has grasped all this, and knows besides when to speak and when to refrain, and can distinguish when to employ and when not to employ the various rhetorical devices of conciseness and pathos and exaggeration and so on that he has learnt, then and not till then can he be said to have perfected his art (272a).

6. Noam Chomsky, Language and Mind (New York: Harcourt Brace, 1968), p. 16.

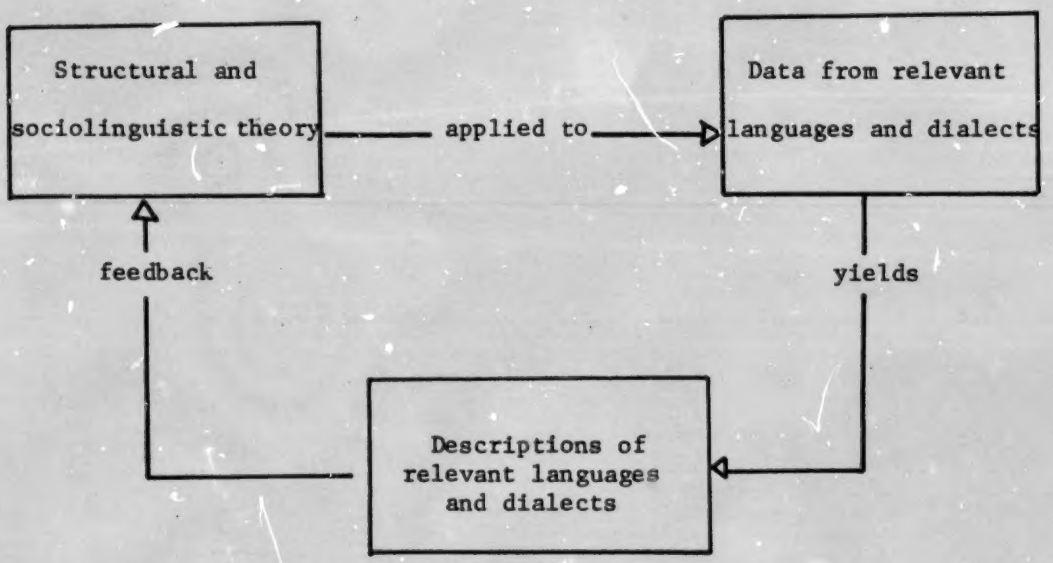
7. Ibid., p. 13.

8. Ibid.

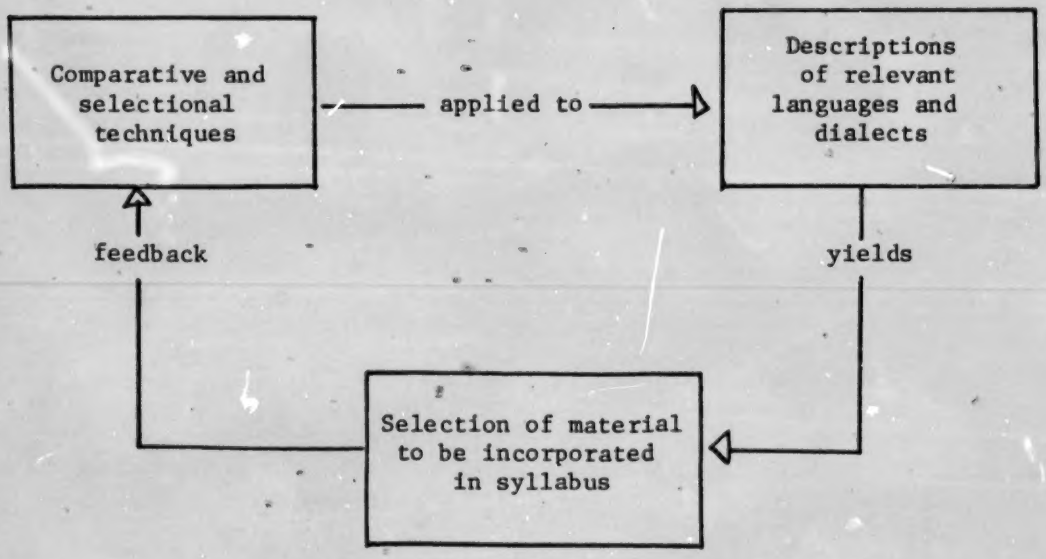
9. Richard Ohmann, "Use Definite, Specific, Concrete Language," College English 41:4 (December, 1979), pp. 390-397. See also Ohmann's "Generative Grammar and the Concept of Literary Style," Word 20 (1964) pp. 423-439.

from S. Pit Corder, Introducing Applied Linguistics (New York: Penguin, 1973), pp. 145-155.

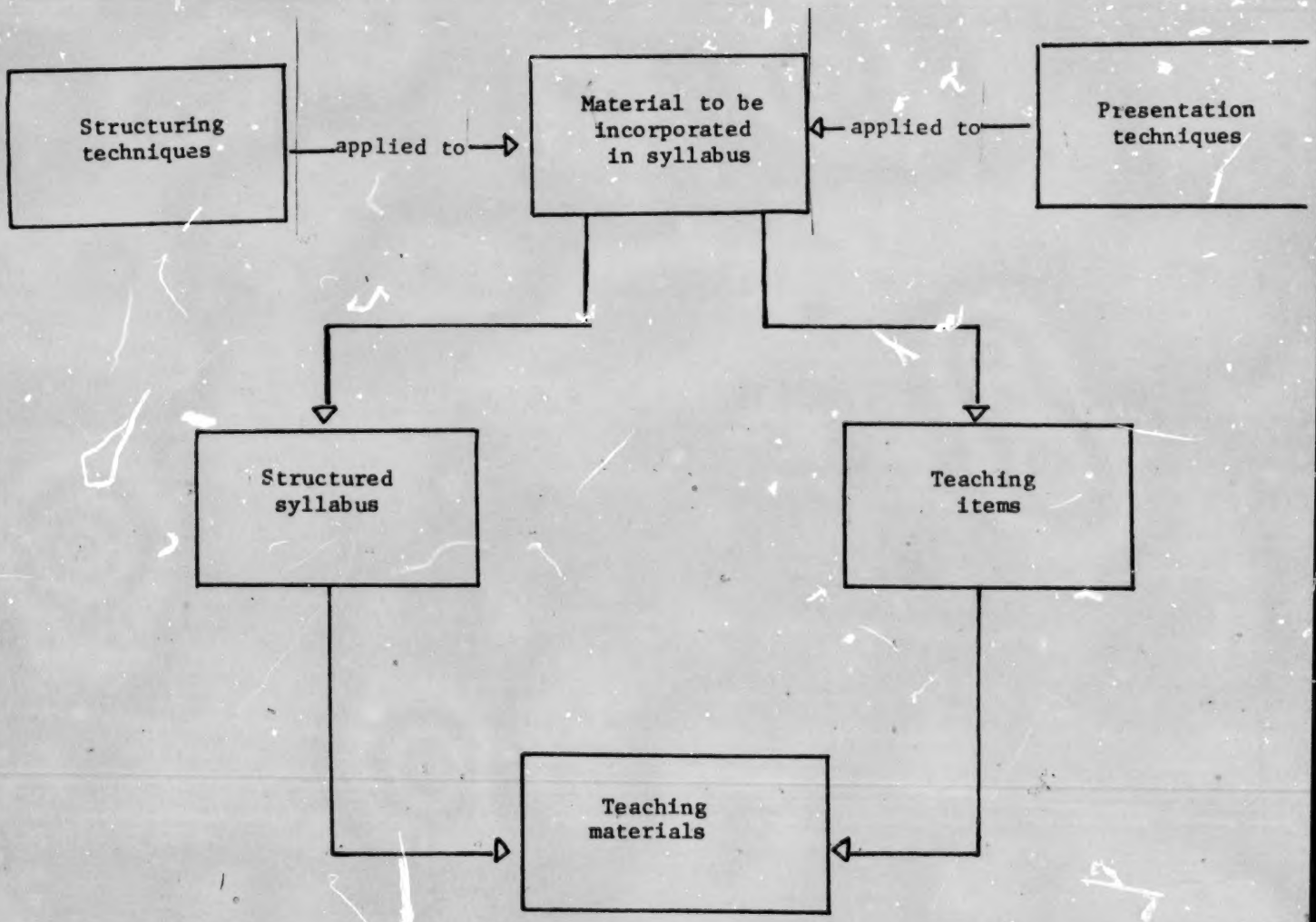
Degrees of Application of Linguistic Theory



First-order applications of linguistics



Second-order applications of linguistics



Third-order applications of linguistics

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